## Dr. Boonrod Sajjakulnukij

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## **EDUCATIONAL BACKGROUND**

Year A.D. 1993	D.Eng. (Chemical Engineering), University of New Brunswick, Canada
Year A.D. 1984	M.Eng. (Civil Engineering), Colorado State University, U.S.A.
Year A.D. 1978	B.Eng. (Chemical Engineering), Prince of Songkla University, Thailand
	(วศ.บ. (วิศวกรรมเคมี), มหาวิทยาลัยสงขลานครินทร์, ประเทศไทย, 2521)

#### WORK EXPERIENCES

2005 – Present	Lecturer, The Joint Graduate School of Energy and Environment
	(JGSEE), King Mongkut's University of Technology Thonburi
1981 - 2005	Alternative Energy Expert Engineer, Department of Alternative Energy
	Development and Efficiency
2002 - 2003	Energy Program Coordinator, Thailand Research Fund

#### **PUBLICATIONS**

### **International Journal**

- Nimitpaitoon, T., Sajjakulnukit, B., and Prangbang, P. (2023) The effect of storage conditions on the characteristics of various types of biomass. *International Journal of Advanced and Applied Sciences*, 10, 10.21833/ijaas.2023.05.016.
- Saosee, P., Sajjakulnukit, B., and Gheewala, S.H., (2022) Environmental externalities of wood pellets from fast-growing and para-rubber trees for sustainable energy production: A case in Thailand. *Energy Conversion and Management*, 14., 100183, https://doi.org/10.1016/j.ecmx.2022.100183.
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- Saosee, P., Sajjakulnukit, B., and Gheewala, S.H. (2020) Feedstock Security Analysis for Wood Pellet Production in Thailand. *Energies*. 13(19): p. 5126.October 2020
- Saosee, P., Sajjakulnukit, B., and Gheewala, S.H. (2020) Life Cycle Assessment of Wood Pellet Production in Thailand. *Sustainability*. 12(17).September 2020
- Unchaisri, T., Fukuda, S., Phongphiphat, A., Saetia, S. and Sajjakulnukit, B. (2019) Experimental Study on Combustion Characteristics in a CFB during Co-firing of Coal with Biomass Pellets in Thailand. *International Energy Journal*. 19(2): p. 101-114. June 2019
- Chuenwong, K., Sajjakulnukit, B. and Chiarakorn, S. (2019) GHG emission projection and mitigation potential for ceramic tableware industry in Thailand. *Mitigation and Adaptation Strategies for Global Change*. 24(3): p. 419-434. March, 2019
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- S Sathitbun-anan, B Fungtammasan, M Barz, B Sajjakulnukit and S. Pathumsawad (2015) An analysis of the cost-effectiveness of energy efficiency measures and factors

- affecting their implementation: a case study of Thai sugar industry. *Energy Efficiency*. 8(1): p. 141-153. Feb 2015
- Sumate Sathitbun-anan, Bundit Fungtammasan, Mirko Barz, Boonrod Sajjakulnukit and Suthum Pathumsawad (2014) Energy efficiency and greenhouse gas emission reduction potentials in sugar production processes in Thailand. *Energy for Sustainable Development*. 23(0): p. 266-274. December 2014
- Salakjai Jenjariyakosoln, Shabbir H Gheewala, Boonrod Sajjakulnukit and Savitri Garivait (2014) Energy and GHG emission reduction potential of power generation from sugarcane residues in Thailand. *Energy for Sustainable Development*. 23(0): p. 32-45. December 2014
- Salakjai Jenjariyakosoln, Boonrod Sajjakulnukit and Savitri Garivait (2013) Energy and Greenhouse Gas Emissions Reduction Potential of Sugarcane Field Residues Power Generation in Thailand. *International Journal of Environmental Science and Development*. 4(2): p. 182-186. April 2013
- Mitra Kami Delivand, Mirko Barz, Shabbir H. Gheewala, and Boonrod Sajjakulnukit. (2012) Environmental and socio-economic feasibility assessment of rice straw conversion to power and ethanol in Thailand. *Journal of Cleaner Production*. 37(0): p. 29-41. December 2012
- Mitra Kami Delivand, Mirko Barz, Shabbir H. Gheewala, and Boonrod Sajjakulnukit. (2011) Economic feasibility assessment of rice straw utilization for electricity generating through combustion in Thailand. *Applied Energy*. 88(11): p. 3651-3658. November 2011

#### **International Conference**

- Chuenwong, I., Chiarakorn, S., and Sajjakulnukit, B. (2015) Assessment of GHG Emissions from Tableware Ceramic Production in Thailand. in The Asian Conference on Sustainability, Energy and Environment (ACSEE2015). Kobe, Japan. 11-14 June 2015.
- Than, S.S. and B. Sajjakulnukit. Energy Consumption Analysis in Myanmar: the Past, Present and Future. in The 3rd International Conference on Environment, Energy and Biotechnology (ICEEB 2014). Bangkok, Thailand.June 9-11, 2014
- Kyu, W.W., B. Sajjakulnukit, A. Bangviwat, C. Sorapipatana, and W.M.C. Beerepoo. A Study of Energy Consumption of the Household Sector in Mynmar. in 2014 The International Conference on Energy, Environment and Sustainable Economy Bangkok, Thailand.17-18 July 2014
- Hayadi, N.W., B. Sajjakulnukit, and S. Haryati. Study on Gasification of Multi-air-stage Downdraft Reactor Using Pelletized Biomass. in 5th International Conference on Sustainable Energy and Environment (SEE 2014) Bangkok, Thailand.November 19-21, 2014
- Andini, A., B. Sajjakulnukit, and N. Subriyer. The design of 50 kWth Multistage Downdraft Wood Gasification System. in The 8th SEATUC Symposium. Juhor Bahru, Malaysia.March 4-5, 2014
- Afrah, B.D., B. Sajjakulnukit, and M.D. Bustan. Life Cycle Cost Analysis of Upgrading Brown Coal (UBC) Process in Indonesia. in 3rd International Renewable Energy and Environment Conference (IREEC 2014). Kuala Lumpur, Malaysia.4-6 July 2014

- Sathitbun-anan, S., B. Fungtammasan, M. Barz, B. Sajjakulnukit, and S. Pathumsawad. The Influence of Temperature and Pressure to Exergy in Sugar Mills Process: Case Study. in 2013 International Conference on Alternative Energy in Developing Countries and Emerging Economies. Bangkok, Thailand.May 30-31, 2013
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- Sajjakulnukit, B. and K. Imjai. Energy Efficiency of Production of Bioethanol from Cassava. in The 2nd Pacific Rim Energy and Sustainabillity Conference (PRESCO 2013). Hiroshima, Japan.27-29 August 2013
- Piya, S.K. and B. Sajjakulnukit. Effect of Variation of design flow in small hydropower plant; A Case study of Chhangdi Small Hydropower Project. in 2013 Alternative Energy in Developing Countries and Emerging Economies. Bangkok, Thailand.30-31 May 2013
- Biswas, A.K., B. Sajjakulnukit, and P. Rakkwamsuk. Subsidy Policy Instruments for Rapid Growth of Photovoltaic Electricity Generation in Bangladesh. in 2013 International Conference on Alternative Energy in Developing Countries and Emerging Economies (2013 AEDCEE). Bangkok, Thailand. .30-31 May 2013
- Sathitbun-anan, S., B. Fungtammasan, M. Barz, B. Sajjakulnukit, and S. Pathumsawad. An Assessment of Energy Saving Potentials in Thai Sugar Industry. in 4<sup>th</sup> International Conference on Sustainable Energy & Environment (SEE 2011): A Paradigm Shift to Low Carbon Society. Bangkok, Thailand.27-29 February 2012
- Sanunnaam, N., B. Sajjakulnukit, and R. Songprakorp. Techno-socio-economic Assessment of Pico Hydropower Installations in Northern Region of Thailand. in International Conference on Environment Science and Engineering IPCBEE. Bangkok, Thailand.7-8 April 2012
- Jenjariyakosoln, S., S. Garivait, and B. Sajjakulnukit. Very Small Power Plant Using Bagasse: Options for Emissions Reduction and Energy Efficiency Improvement in 4<sup>th</sup> International Conference on Sustainable Energy & Environment (SEE 2011): A Paradigm Shift to Low Carbon Society. Bangkok, Thailand.27-29 February 2012
- Jangrattasasapintu, W., N. Laosiripojana, and B. Sajjakulnukit. A Study on Recovery of Aluminum and Cellulose from Waste Tetra Pak by Solvent Extraction Process. in International Conference on Green and Sustainable Innovation 2012. Chiang Mai, Thailand.24-26 May 2012
- Jangrattasasapintu, W., N. Laosiripojana, and B. Sajjakulnukit. A Study on the Recovery of the Pulp Paper and Aluminum Material from Waste Tetra Pak by the Conventional Soxhlet Extraction Process. in 2012 International Conference on Sustainable Environmental Technologies (ICSET). Bangkok, Thailand.26-27 April 2012
- Febrina, L., B. Sajjakulnukit, and M. Said. Life Cycle Cost Analysis of Biodiesel Production from Jatropha Curcas Oil in Indonesia. in The 6th South East Asian Technical University Consortium Symposium (SEATUC 2012). Bangkok, Thailand.March 6-7, 2012

- Suppamit, T. and B. Sajjakulnukit. Energy Assessment of Biodiesel Production from Oil Palm in Thailand. in The 9th Eco-Energy and Material Science and Engineering Symposium 2011 (EMSES 2011). Chiang Rai, Thailand.25-28 May 2011
- Praropkul, K. and B. Sajjakulnukit. Simulation of Rubber Wood Gasification in a Lab-Scale Fluidized Bed Reactor Using ASPEN PLUS. in The 9<sup>th</sup> Eco-Energy and Material Science and Engineering Symposium 2011 (EMSES 2011). Chiang Rai, Thailand.25-28 May 2011
- Barz, M. and B. Sajjakulnukit. Biomass Potentials & Conversion Technologies for Electricity Generation. in Alternative energy forum Thailand 2010. Bangkok, Thailand.24-25 March 2010
- Siriput, P., B. Sajjakulnukit, and N. Laosiripojana. Economic Feasibility Study of BTL Production in Thailand. in World Renewable Energy Congress 2009-Asia, The 3rd International Conference on "Sustainable Energy and Environment (SEE 2009). Bangkok, Thailand.18-23 May 2009
- Gheewala, S.H., S. Garivait, and B. Sajjakulnukit. Environmental Evaluation of Energy Production from Agricultural Products in a Life Cycle Perspective. in World Renewable Energy Congress VIII (WREC 2004). Denver, Colorado, USA.August 28-September 3, 2004

#### **National Journal**

- Chhetri, L.K. and Sajjakulnukit, B., (2018) A Study of Household Energy Consumption in Thimphu: Bhutan. *Journal of Sustainable Energy & Environment*. 9, 65-71.
- Win Win Kyu and Boonrod Sajjakulnukit (2014) A Study of Energy Consumption of the Household Sector in Myanmar. Journal of Natural Sciences Research. 4(13-Special Issue)): p. 42-48. July 2014